Lloyd Carpenter **RDC ATTENDEES**: 982-3708 Al Fleig 900 286-7747 Harold Geller **RDC** 982-3740 Tom Goff RDC 982-3704 Liam Gumley **RDC** 982-3748 Lou Kouvaris Hughes 805-0303 Ed Masuoka 920.2 286-7608 Al McKay **RDC** 982-3720 974 Jim Ormsby 286-6811 Shahin Samadi 920.2/RMS 286-8510

NEXT MEETING: Date Time Building Room Friday, July 5 10:00am 16 242

## **TOPICS:**

1. MODIS AIRBORNE SIMULATOR (MAS): Liam Gumley discussed the data rate of the current MAMS Level-1A data, which is 232 megabytes/hour. It takes several 6250-bpi tapes to hold the data from a single flight, but a single Exabyte tape, which holds over 2 gigabytes, could do the job. If Ames can provide the data on Exabyte tapes, and if we will be using a system with Exabyte capability, that would be the medium of choice.

There will be a demand for hard copies of image data at GSFC, and hard copy facilities are available in the LTP.

The plan is to have image viewing capability available to the users at GSFC, but there won't be a browse data product in the usual sense of the word.

There was considerable discussion of the MAS Level-1B output data format. Al Fleig says that we must conform to the External Data Representation (XDR) rules of the Hierarchical Data Format (HDF), the conversion routines are in the public domain and should be readily available.

2. CASE TOOLS: Tom Goff discussed the current state-of-the-art in Computer Aided Software Engineering (CASE) tools and implementations as presented at the Hewlett-Packard (HP) CASE Technology symposium on June 27, 1991. IDE's "Software Through Pictures" and Cadre's "Teamwork" are the industry leaders in the number of platforms and languages supported for a front-end development tool. Teamwork has a version for

PCs while Software Through Pictures doesn't. "Soft Bench" gives a multiplatform umbrella product for CASE front ends, configuration management, and code development tools. It is supported on HP, Apollo, Sun, IBM, DEC Ultrix, and a CDC license for SGI (to be confirmed). Since it supports C and FORTRAN on all machines and C++ and ADA on HP machines currently, it appears to be the current best choice for code development. Tom has an action to come up with the total cost.

3. PRODUCT GRANULE SIZES: Al McKay led a discussion of data granule size considerations, starting from the possible limitations due to the projected on-line disk storage availability to the users. There was no agreement on how large that might be.

Level-1A granule volumes for MODIS-T were given for daytime granule sizes of one per day (17,890 MBytes), orbit (1,229 MBytes), scene (113 MBytes daytime), scan (1.7 MBytes daytime), or packet (0.001 MBytes daytime). One granule per scene was considered to be a reasonable compromise. Further consideration needs to be given to the volume of data resulting from a maximum stare mode sequence, for a square scene, for the dark side, and for MODIS-N. We should also consider the impact of keeping the individual counts in the Level-1B product.

4. SCENARIOS FOR LEVEL-1 PROCESSING: The discussion began with the normal processing scenario. We should write down a detailed list of scheduler assumptions, since these are involved in constructing processing scenarios. We need to find out from Bill Barnes whether the platform ancillary data will be included with the instrument data.

## **ACTION ITEMS:**

05/03/91 [Lloyd Carpenter and Tom Goff]: Prepare a Level-1 processing assumptions, questions and issues list, to be distributed to the Science Team Members and the MCST for comment. (The list, the executive summary, information on the EOS Platform Ancillary Data, and a cover letter were delivered for signature and distribution.) STATUS: Open. Due date 06/07/91.

05/31/91 [Liam Gumley]: Establish a connection with the proper person at Ames Research Center for communication on MAS formats, an interface control document, agreements, etc. STATUS: Open. Due date 07/19/91

06/07/91 [Liam Gumley]: Speak to Alan Strahler, when he returns,

regarding his MAS requirements. STATUS: Open. Due date 07/05/91

06/21/91 [Liam Gumley]: Obtain a copy of all available MAS Level-1B processing software and any existing documentation from the University of Wisconsin at Madison for porting to a system at GSFC. STATUS: Open. Due date 07/19/91

06/21/91 [Liam Gumley]: Generate a complete milestone schedule for conversion, installation and testing of all modules of the MAS Level-1B processing software at GSFC. Draw up an agreement between the SDST and Mike King of what will be done. STATUS: Open. Due date 07/19/91

05/31/91 [Al McKay and Phil Ardanuy]: Examine the effects of MODIS data product granule size on Level-1 processing, reprocessing, archival, distribution, etc. (A preliminary report was presented at the meeting.) STATUS: Open. Due Date 06/21/91

06/28/91 [Lloyd Carpenter and Tom Goff]: Prepare a detailed list of scheduler assumptions in relation to Level-1 MODIS processing scenarios. STATUS: Open. Due date 07/26/91.

06/28/91 [Lloyd Carpenter]: Prepare a letter to Bill Barnes inquiring as to whether or not the platform ancillary data will be included with the MODIS instrument data. STATUS: Open. Due date 07/05/91.

06/28/91 [Tom Goff]: Prepare an estimate of the total cost of Cadre's Teamwork CASE tools and the Soft Bench umbrella product for the MODIS environment. STATUS: Open. Due date 07/05/91.